

PPAR- γ Ligands in the Treatment of Asthma and Allergies

Abstract

Ligands for the nuclear hormone receptor PPAR γ significantly reduced the immunological symptoms of allergic asthma in a murine model of this disease. *In vitro*, 15-deoxy-Delta(12,14)-prostaglandin J(2), a PPAR γ ligand, significantly inhibited production of the T_H2 type cytokine IL-5 from T cells activated *in vitro*. More importantly, in a model of allergic asthma, mice treated orally with Ciglitazone had significantly reduced lung inflammation and mucous production following induction of allergic asthma. T cells from Ciglitazone treated mice also produced less IFN γ , IL-4 and IL-2 upon rechallenge *in vitro* with the model allergen. Our results suggest that ligands for PPAR γ may be effective treatments for asthmatic patients.